

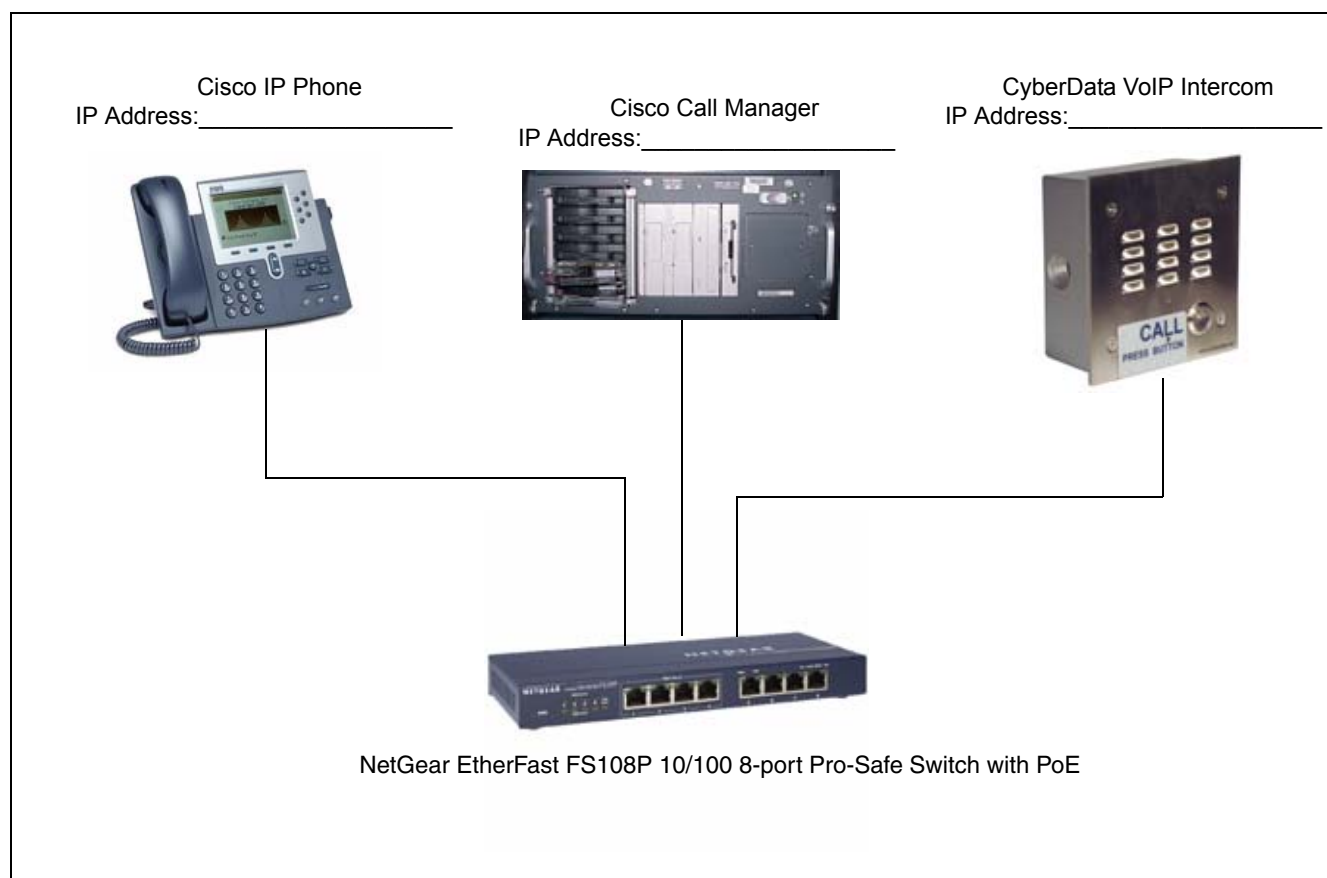


VoIP Intercom and Cisco Call Manager Server Setup Guide

1.0 Setup Diagram

Figure 1-1 is a setup diagram for a single VoIP Intercom configuration. In this configuration, the Intercom acts as a standalone SIP telephony device.

Figure 1-1. Setup Diagram



2.0 Host PC Environment

Table 2-1. Host PC Environment Details

Description	
Hardware Type	
Hardware Version	
Software Type	Cisco Call Manager
Software Version	System Version 7.0.1.11000-2

3.0 Test Setup Equipment

Table 3-1. Test Setup Equipment

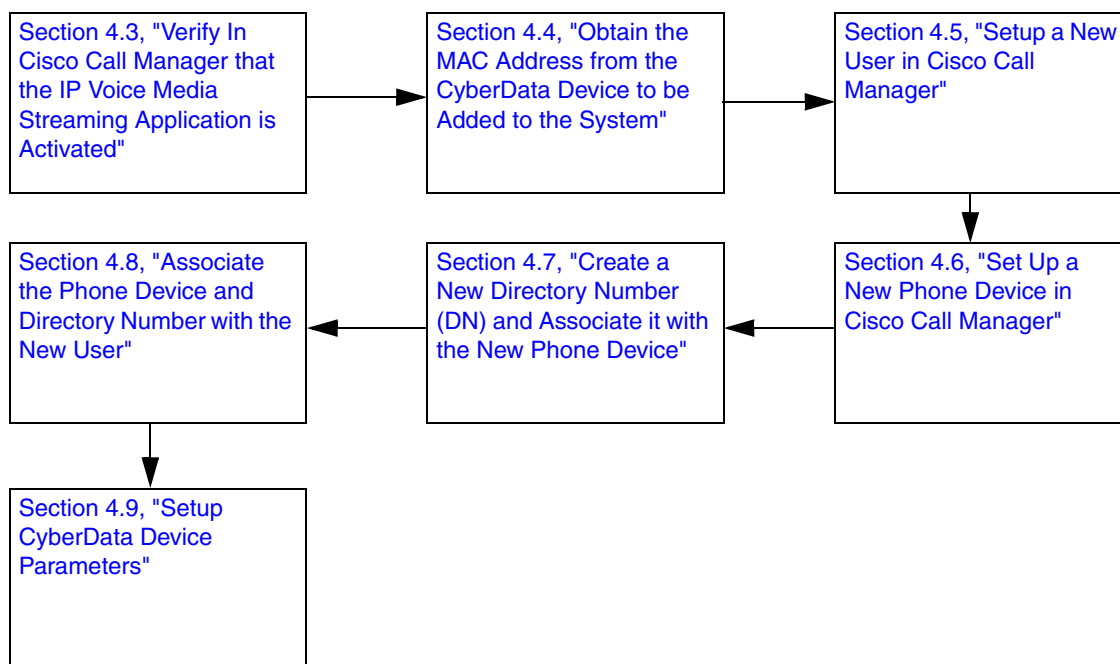
Equipment	Model	Version
Cisco IP Phone	7940	
Notes:		
CyberData VoIP Intercom	010935	4.01
Notes:		
Linksys EtherFast 10/100 8-port Workgroup Hub	N/A	N/A
Notes:		
Notes:		
Notes:		
Notes:		
Notes:		
Notes:		

4.0 Setup Procedure

4.1 Setup Procedure Overview

- [Section 4.3, "Verify In Cisco Call Manager that the IP Voice Media Streaming Application is Activated"](#)
- [Section 4.4, "Obtain the MAC Address from the CyberData Device to be Added to the System"](#)
- [Section 4.5, "Setup a New User in Cisco Call Manager"](#)
- [Section 4.6, "Set Up a New Phone Device in Cisco Call Manager"](#)
- [Section 4.7, "Create a New Directory Number \(DN\) and Associate it with the New Phone Device"](#)
- [Section 4.8, "Associate the Phone Device and Directory Number with the New User"](#)
- [Section 4.9, "Setup CyberData Device Parameters"](#)

4.2 Setup Procedure Overview Diagram



4.3 Verify In Cisco Call Manager that the IP Voice Media Streaming Application is Activated

To verify In Cisco Call Manager that the IP Voice Media Streaming Application is activated,

1. Log in to Cisco Call Manager and you will see the screen in [Figure 4-2](#).
2. Click on the **Navigation** drop-down menu and select **Cisco Unified Serviceability**.
3. Click on the **Go** button.

Figure 4-2. Main Page

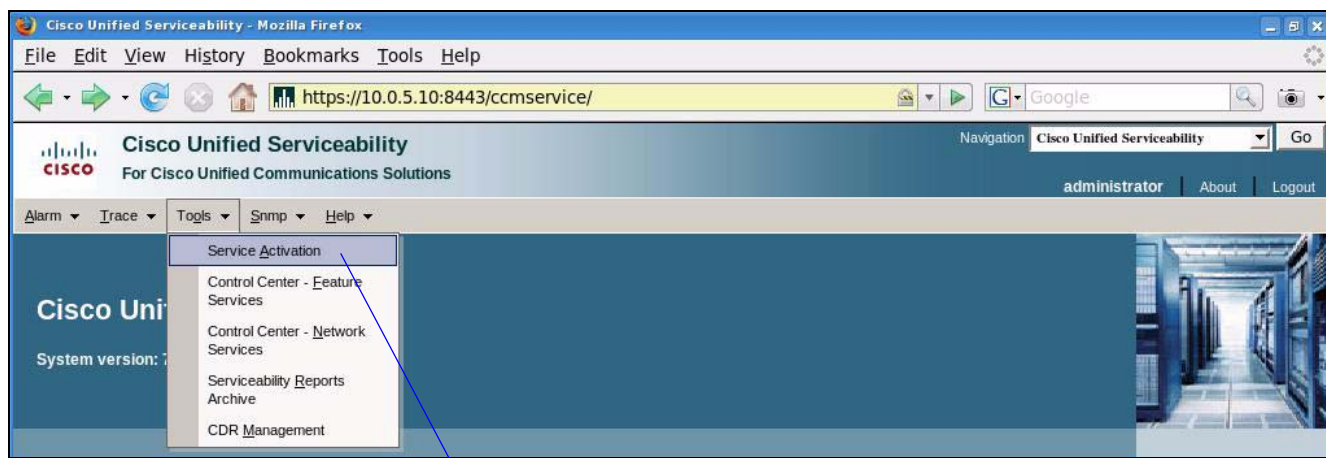


Navigation Drop-down menu

Go

4. On the **Cisco Unified Serviceability** page, select the **Tools** menu and select **Service Activation**.

Figure 4-3. Cisco Unified Serviceability Page



Tools menu (select **Service Activation**)

5. Scroll down and see if the **Activation Status** of the **Cisco IP Voice Media Streaming App** is **Activated**. If the **Activation Status** does not display the word **Activated**, then click on the checkbox next to the **Cisco IP Voice Media Streaming App** service name to activate it.

Figure 4-4. Cisco IP Voice Media Streaming App

CM Services		
	Service Name	Activation Status
☒	Cisco CallManager	Activated
☒	Cisco Tftp	Activated
☐	Cisco Messaging Interface	Deactivated
☐	Cisco Unified Mobile Voice Access Service	Deactivated
☒	Cisco IP Voice Media Streaming App	Activated
☒	Cisco CTIManager	Activated
☐	Cisco Extension Mobility	Deactivated
☐	Cisco Extended Functions	Deactivated
☐	Cisco Dialed Number Analyzer	Deactivated
☐	Cisco DHCP Monitor Service	Deactivated

Cisco IP Voice Media Streaming App

6. Scroll down and click on the **Save** button at the bottom of the page.

Figure 4-5. Save Button on the Cisco Unified Serviceability Page

Directory Services

	Service Name	Activation Status
☐	Cisco DirSync	Deactivated

Save

Set to Default

Refresh

i

 *- indicates required item.

Save button

7. Scroll up and click on the **Navigation** drop-down menu. Select **Cisco Unified CM Administration**.

Figure 4-6. Navigation Menu

CISCO

Cisco Unified CM Administration

For Cisco Unified Communications Solutions

Navigation

Cisco Unified CM Administration

Go

administrator

About

Logout

System

Call Routing

Media Resources

Voice Mail

Device

Application

User Management

Bulk Administration

Help

Navigation menu (select **Cisco Unified CM Administration**)

8. Click on the **Go** button.

Note You only need to complete [Step 1](#) through [Step 8](#) once for all CyberData devices.

4.4 Obtain the MAC Address from the CyberData Device to be Added to the System

In order to complete some of the steps in this procedure, you will first need to get the Mac Address from the **CyberData Home Page**.

To obtain the MAC address from the CyberData Device to be added to the system,

1. Log into the **CyberData Home Page** (Figure 4-7) by pointing your browser to the device's IP address.

Note For the initial configuration of the device, refer to the VoIP Intercom Operation Guide pdf which can be found at the VoIP Intercom product page at:

<http://www.cyberdata.net/support/voip/index.html>

Note You may also download CyberData's VoIP Discovery Utility program which allows you to easily find and configure the default web address of the CyberData VoIP products. CyberData's VoIP Discovery Utility program is available at the following web address:

http://www.cyberdata.net/support/voip/discovery_utility.html

2. When prompted, enter the following **Web Access Username** and **Web Access Password** to access the **CyberData Home Page** (Figure 4-7):

Default Login:

Web Access Username: **admin**

Web Access Password: **admin**

3. Go to the **CyberData Home Page** (Figure 4-7) and write down the **Mac Address** number from it.

Note You will need this **Mac Address** number to complete some steps later in this procedure that will ask for a **MAC Address** number.

Figure 4-7. CyberData Home Page

The screenshot displays the 'CyberData Intercom' web interface. On the left is a vertical navigation menu with buttons for 'Home', 'Device Config', 'Networking', 'SIP Config', 'Sensor Config', 'Audio Config', and 'Update Firmware'. The main content area is divided into two sections: 'Device Settings' and 'Current Settings'. The 'Device Settings' section includes fields for 'Device Name' (VoIP Intercom), 'Change Username' (admin), 'Change Password', and 'Re-enter Password'. The 'Current Settings' section lists various parameters: 'Serial Number' (935000000), 'Mac Address' (00:20:f7:35:05:4e), 'Firmware Version' (v4.0.0), 'IP Addressing' (dhcp), 'IP Address' (192.168.1.29), 'Subnet Mask' (255.255.255.0), 'Default Gateway', 'DNS Server 1' (68.87.76.178), 'DNS Server 2' (66.240.48.9), 'Speaker Volume' (4), 'Microphone Gain' (4), and 'Primary Dialout' (204). A red box highlights the 'Mac Address' field, and a red arrow points from this box to the text 'Mac Address number' located below the interface. At the bottom of the settings area, there is a note: '* You need to reboot for changes to take effect', followed by 'Save' and 'Reboot' buttons.

Device Settings	
Device Name:	VoIP Intercom
Change Username:	admin
Change Password:	
Re-enter Password:	

Current Settings	
Serial Number:	935000000
Mac Address:	00:20:f7:35:05:4e
Firmware Version:	v4.0.0
IP Addressing:	dhcp
IP Address:	192.168.1.29
Subnet Mask:	255.255.255.0
Default Gateway:	
DNS Server 1:	68.87.76.178
DNS Server 2:	66.240.48.9
Speaker Volume:	4
Microphone Gain:	4
Primary Dialout:	204

* You need to reboot for changes to take effect

Save Reboot

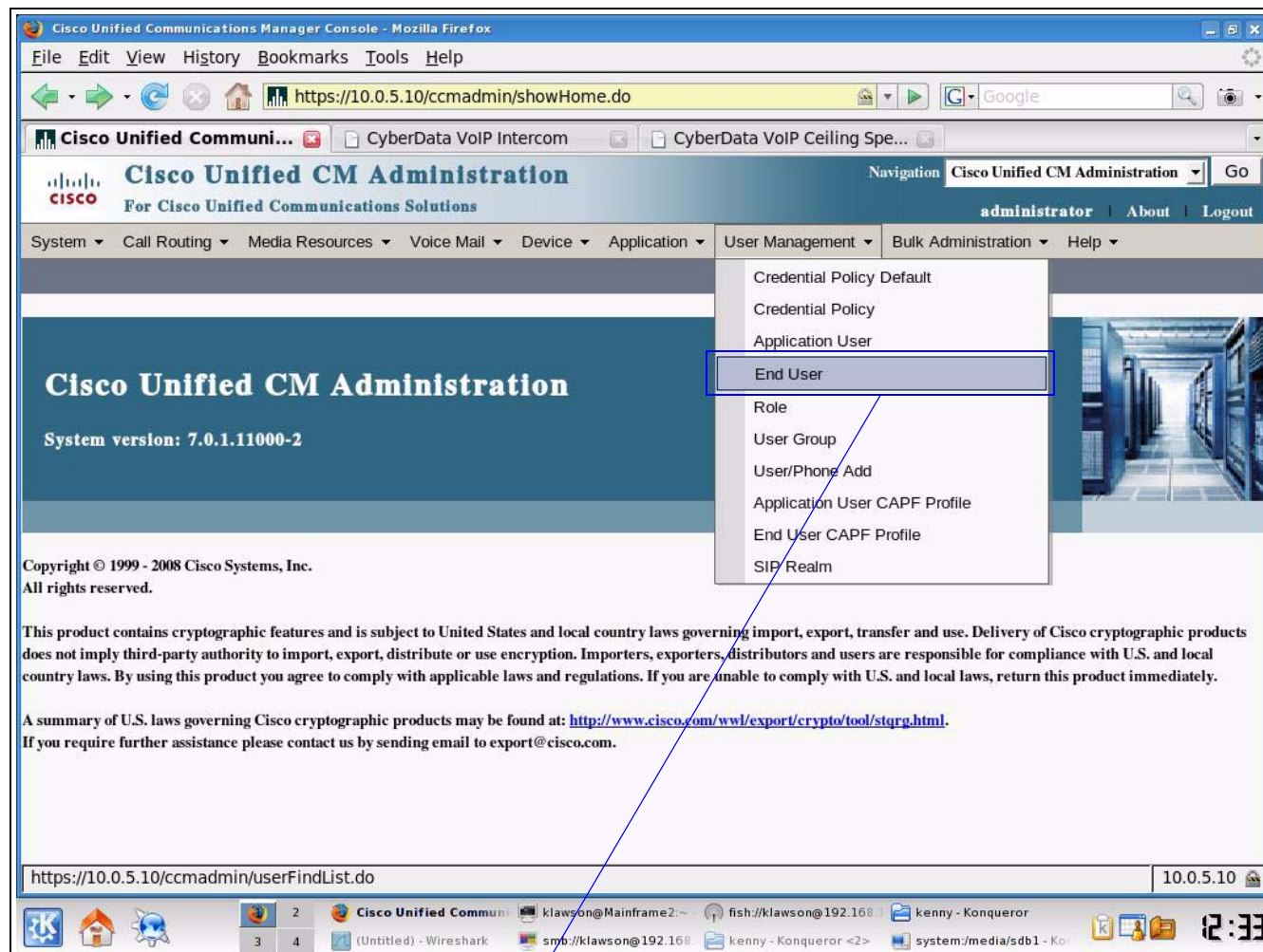
Mac Address number

4.5 Setup a New User in Cisco Call Manager

To setup a new user in Cisco Call Manager,

1. Go to the **Cisco Unified CM Administration** page. On the **Cisco Unified CM Administration** page, go to the **User Management** menu and select **End User**. This will take you to the **Find and List Users** page.

Figure 4-8. User Management Menu



User Management menu (select End User)

2. On the **Find and List Users** page, click on **Add New** (Figure 4-9). This will take you to the **End User Configuration** page.

Figure 4-9. Find and List Users Page

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation **Cisco Unified CM Administration** Go

administrator | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Find and List Users

+ Add New

User

Find User where **First name** ▾ **begins with** ▾ Find Clear Filter + -

No active query. Please enter your search criteria using the options above.

Add New

Add New

3. On the **End User Configuration** page (Figure 4-10), complete the following steps:

- Type a user ID into the **User ID** field.

Note Write this User ID down. You will need this User ID to complete some steps later in this procedure.

- Type a name into the **Last name** field.

Note The **User ID** field and the **Last name** field have an asterisk next to them because they are the only two fields that you need to complete on this page. On the Cisco Call Manager pages, only the fields with an asterisk will require input from you.

Figure 4-10. End User Configuration Page

6

The screenshot displays the Cisco Unified CM Administration interface. At the top, the navigation bar includes the Cisco logo, the title 'Cisco Unified CM Administration', and a 'Go' button. Below this is a secondary navigation bar with links like 'System', 'Call Routing', 'Media Resources', etc. The main content area is titled 'End User Configuration'. It features a 'Save' button and a 'Status' section showing 'Status: Ready'. The 'User Information' section contains several input fields. Two blue arrows originate from labels at the bottom: 'Last name' points to the 'Last name*' field, which contains the text 'Speaker', and 'User ID' points to the 'User ID*' field, which contains the text 'Speaker 3'. Other fields include Password, Confirm Password, PIN, Confirm PIN, Middle name, First name, Telephone Number, Mail ID, and Manager User ID.

4. Scroll down and click **Save** at the bottom of the page. After a few seconds you will see the screen shown in [Figure 4-11](#). The screen Status will now say **Add Successful**.

Figure 4-11. End User Configuration Page

6

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go

administrator | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

End User Configuration Related Links: Back to Find List Users Go

Save X Delete + Add New

Status

Add successful

User Information

User ID*	Speaker 3	
Password	*****	Edit Credential
Confirm Password	*****	
PIN	*****	Edit Credential
Confirm PIN	*****	
Last name*	Speaker	
Middle name		
First name		
Telephone Number		
Mail ID		
Manager User ID		

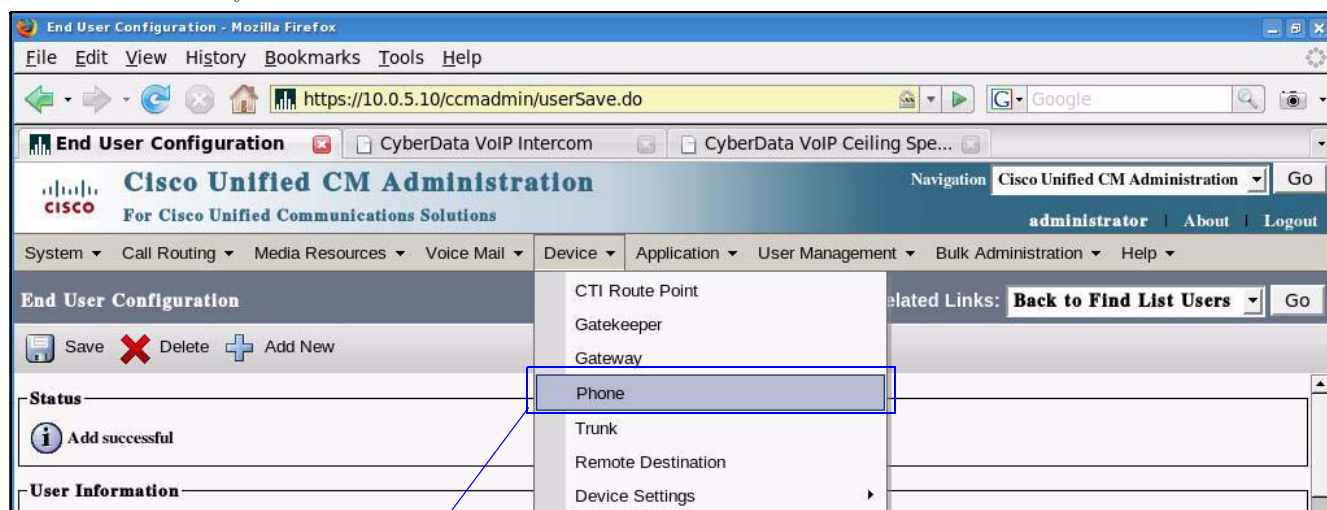
Add successful

4.6 Set Up a New Phone Device in Cisco Call Manager

To set up a new phone device in Cisco Call Manager,

1. Go to the **Device** menu and select **Phone**. This will take you to the **Find and List Phones** menu.

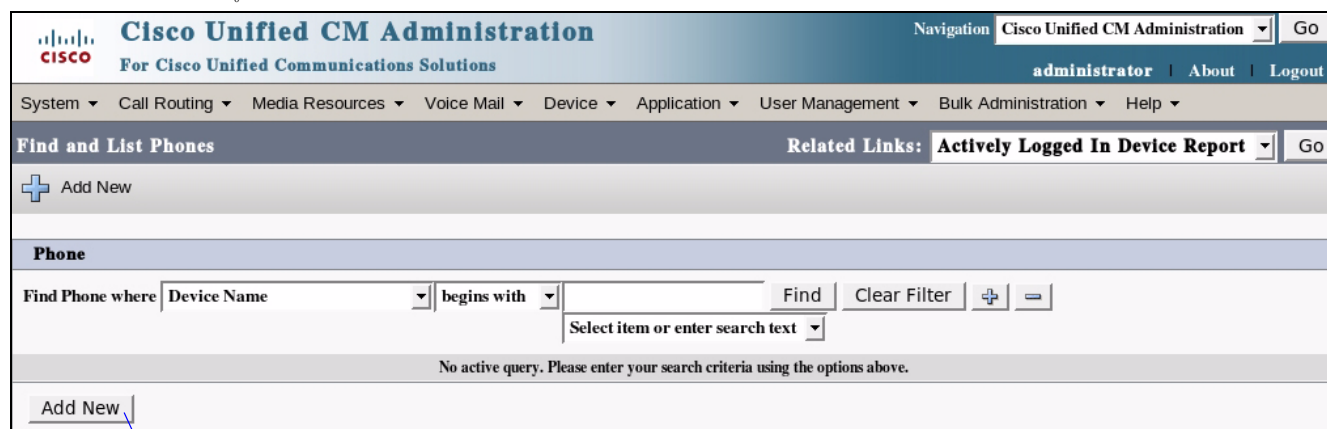
Figure 4-12. Cisco8



Device menu (select **Phone**)

2. In the **Find and List Phones** menu, click on **Add New**. This will take you to the **Add a New Phone** page.

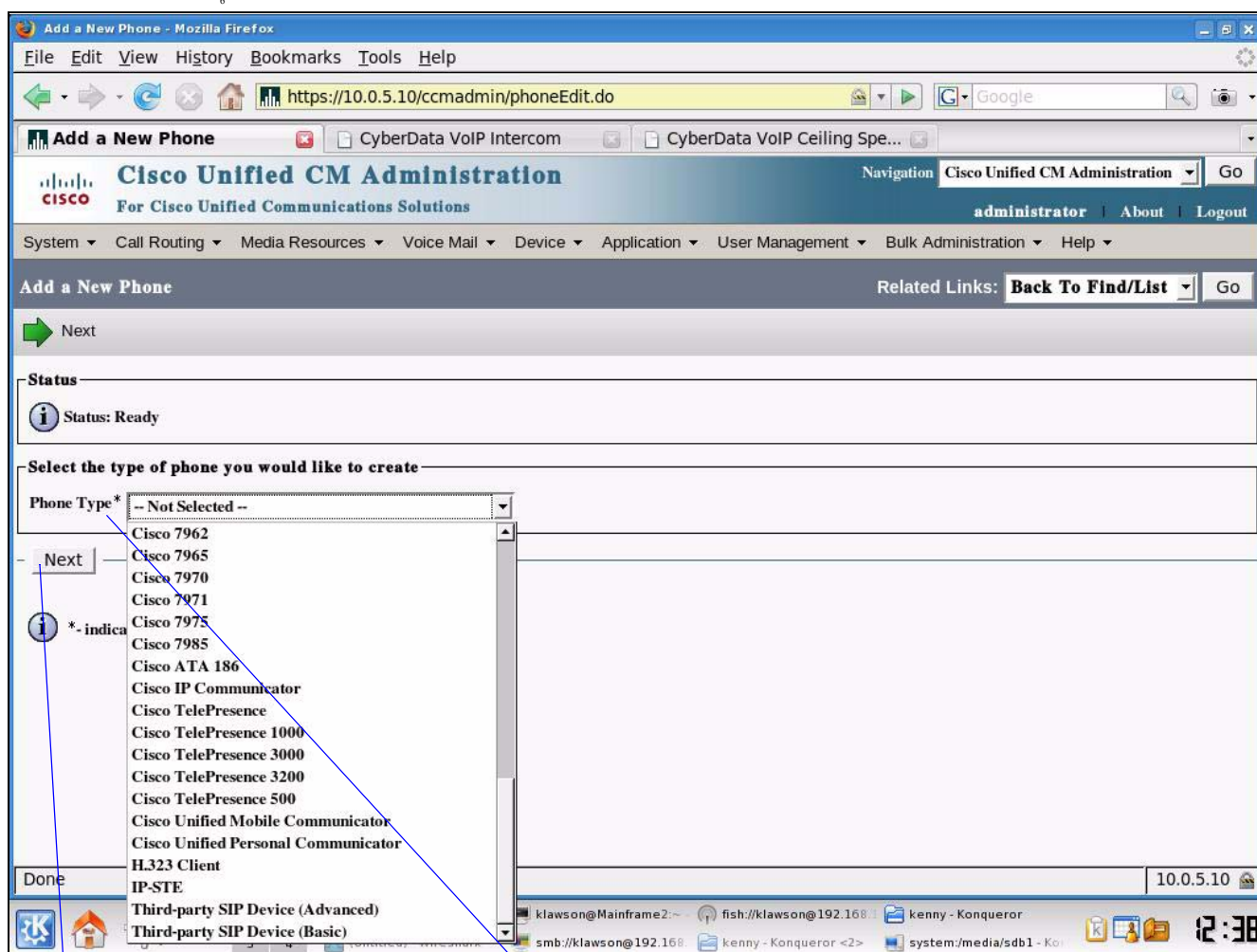
Figure 4-13. Find and List Phones Menu



Add New

3. On the **Add a New Phone** page go to the **Phone Type** drop-down menu, and select **Third Party SIP Device (Basic)**.

Figure 4-14. Phone Configuration Page



Next button

Phone Type drop-down menu

4. Click **Next**. This will take you to the **Phone Configuration** page.

For a summary of all of the settings that are necessary for the **Phone Configuration** page (Figure 4-15 through Figure 4-17), see Table 4-1.

For a step-by-step description of the settings that are necessary for the Phone Configuration page, go to Step 5.

Note On the **Phone Configuration** page, you will see that all of the parameters listed in Table 4-1 have an asterisk next to them because they are the only parameters that require your input on the **Phone Configuration** page.

Table 4-1. Phone Configuration Page Settings

Phone Device Parameter	Selected Setting
Mac Address field	Type the number that you wrote down from the Mac Address field of the CyberData Home Page (Figure 4-7).
Description field	Type any kind of description that you want. In Figure 4-15, the name <i>Speaker 3</i> was typed into the Description field.
Device Pool drop-down menu	Select Default .
Phone Button Template drop-down menu	Select Third party SIP Device (Basic) .
Owner User ID drop-down menu	Select the name that you typed into the Description field in Step 3 of Section 4.5, "Setup a New User in Cisco Call Manager".
Device Security Profile drop-down menu	Select Third-Party SIP Device Basic-Standard SIP Non-secure Profile .
SIP Profile drop-down menu	Select Standard SIP Profile .
Digest User drop-down menu	Select the name that you typed into the Description field in Step 3 of Section 4.5, "Setup a New User in Cisco Call Manager".
Media Termination Point Required box	Make sure that the Media Termination Point Required box is checked.
Save button on the bottom of the page	Click the Save button on the bottom of the page only after you have finished configuring all of the settings on the Phone Configuration page.

- On the **Phone Configuration** page (Figure 4-15), get the number that you wrote down from the **Mac Address** field of the **CyberData Home Page** (Figure 4-7), and type it into the **Mac Address** field.

Figure 4-15. Phone Configuration Page

6

The screenshot shows the Cisco Unified CM Administration interface. The top navigation bar includes the Cisco logo, the title 'Cisco Unified CM Administration', and a navigation menu with options like System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The main header area displays 'Phone Configuration' and a 'Save' button. Below this, the 'Status' section shows 'Status: Ready'. The 'Phone Type' section indicates 'Product Type: Third-party SIP Device (Basic)' and 'Device Protocol: SIP'. The 'Device Information' section contains several fields: 'MAC Address*' (0020F7500C1E), 'Description' (Speaker 3), 'Device Pool*' (Default), 'Common Device Configuration' (<None >), 'Phone Button Template*' (Third-party SIP Device (Basic)), 'Common Phone Profile*' (Standard Common Phone Profile), 'Calling Search Space' (<None >), and 'AAR Calling Search Space' (<None >). Blue lines from labels at the bottom point to the 'Phone Button Template', 'Device Pool', 'Description', and 'Mac Address' fields.

Phone Button Template Device Pool Description Mac Address

- In the **Description** field, type any kind of description that you want.

Note In Figure 4-15, the name *Speaker 3* was typed into the **Description** field.

- In the **Device Pool** drop-down menu, select **Default**.
- In the **Phone Button Template** drop-down menu, select **Third party SIP Device (Basic)**.

9. Scroll down to the **Owner User ID** drop-down menu (Figure 4-16). Select the name that you typed into the **Description** field in Step 3 of Section 4.5, "Setup a New User in Cisco Call Manager".

Figure 4-16. Phone Configuration Page

6

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go

administrator | About | Logout

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Phone Configuration Related Links: Back To Find/List Go

Save

AAR Calling Search Space	< None >
Media Resource Group List	< None >
Location*	Hub_None
AAR Group	< None >
Device Mobility Mode*	Default View Current Device Mobility Settings
Owner User ID	Speaker 3
Use Trusted Relay Point*	Default
Calling Party Transformation CSS	< None >
☒ Use Device Pool Calling Party Transformation CSS ☒ Is Active ☐ Ignore Presentation Indicators (internal calls only) ☒ Logged Into Hunt Group ☐ Remote Device	

Protocol Specific Information

Presence Group*	Standard Presence group
-----------------	-------------------------

Owner User ID

10. Scroll down to the **Device Security Profile** drop-down menu (Figure 4-17), and select **Third-Party SIP Device Basic-Standard SIP Non-secure Profile**.

Figure 4-17. Phone Configuration Page

The screenshot shows the Cisco Unified CM Administration interface for Phone Configuration. The page includes a navigation bar at the top with links like System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The main content area is titled 'Phone Configuration' and contains several sections: 'Protocol Specific Information' and 'MLPP Information'. In the 'Protocol Specific Information' section, there are dropdown menus for 'Presence Group*', 'MTP Preferred Originating Codec*', 'Device Security Profile*', 'Rerouting Calling Search Space', 'SUBSCRIBE Calling Search Space', 'SIP Profile*', and 'Digest User'. There are also checkboxes for 'Media Termination Point Required', 'Unattended Port', and 'Require DTMF Reception'. At the bottom, there is a 'Save' button. Blue arrows from labels below point to the 'Save' button, 'Media Termination Point Required' checkbox, 'Digest User' dropdown, 'SIP Profile*' dropdown, and 'Device Security Profile*' dropdown.

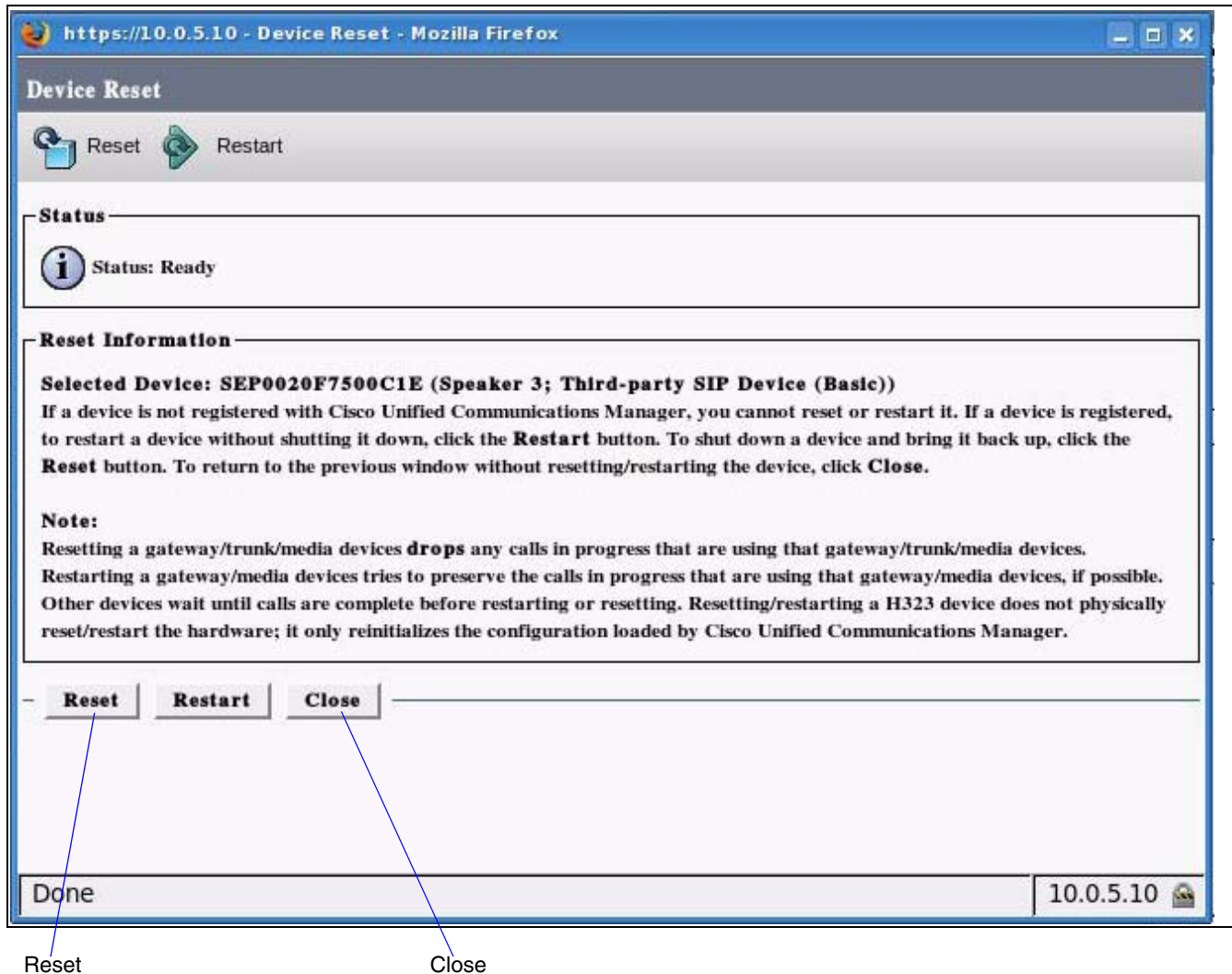
11. In the **SIP Profile** drop-down menu, select **Standard SIP Profile**.
12. In the **Digest User** drop-down menu, select the name that you typed into the **Description** field in Step 3 of Section 4.5, "Setup a New User in Cisco Call Manager".
13. Click to check the box next to **Media Termination Point Required**.
14. Click on the **Save** button at the bottom of the page. Wait for the page to refresh and you will see the following popup window that says *Click on the Reset Phone Button to have the changes take effect*. Click on the **OK** button.

Figure 4-18. Click on the Reset Phone Button Dialog Window



15. After the page takes a minute to process, you will see the **Phone Configuration** page again. Scroll down to the bottom of the page and press the **Reset** button.
16. A new **Device Reset** window appears (Figure 4-19). Click on the **Reset** button in the window, and then click on the **Close** button.

Figure 4-19. Device Reset Window



17. After the reset is complete, you will see the page shown in [Figure 4-20](#). The **Status** section on the page will say **Add Successful**.

Figure 4-20. Association Information Section

6

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go

administrator | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Phone Configuration Related Links: **Back To Find/List** Go

Save Delete Copy Reset Add New

Status

Add successful

Association Information

Modify Button Items

1 Line [1] - Add a new DN

Phone Type

Product Type: Third-party SIP Device (Basic)
Device Protocol: SIP

Device Information

Registration	Unknown
IP Address	Unknown
MAC Address*	0020F7500C1E
Description	Speaker 3
Device Pool*	Default View Details
Common Device Configuration	< None > View Details
Phone Button Template*	Third-party SIP Device (Basic)
Common Phone Profile*	Standard Common Phone Profile

Add Successful

4.7 Create a New Directory Number (DN) and Associate it with the New Phone Device

To create a new directory number (DN) and associate it with the new phone device,

1. Underneath the **Modify Button Items** button, click on **Line(1) - Add a new DN**.

Figure 4-21. Add a New Directory Number (DN)

6

The screenshot displays the Cisco Unified CM Administration web interface. At the top, the navigation bar includes the Cisco logo, the title 'Cisco Unified CM Administration', and a navigation menu with options like 'System', 'Call Routing', 'Media Resources', 'Voice Mail', 'Device', 'Application', 'User Management', 'Bulk Administration', and 'Help'. The user is logged in as 'administrator'. Below the navigation bar, the 'Phone Configuration' section is active, showing a 'Related Links' dropdown set to 'Back To Find/List'. A toolbar contains icons for 'Save', 'Delete', 'Copy', 'Reset', and 'Add New'. A status message 'Add successful' is displayed. The main content area is divided into two sections: 'Association Information' and 'Phone Type'. In the 'Association Information' section, there is a 'Modify Button Items' button and a link 'Line [1] - Add a new DN' which is highlighted with a blue arrow. The 'Phone Type' section shows 'Product Type: Third-party SIP Device (Basic)' and 'Device Protocol: SIP'. The 'Device Information' section contains a table with fields for 'Registration', 'IP Address', 'MAC Address*', 'Description', 'Device Pool*', 'Common Device Configuration', 'Phone Button Template*', and 'Common Phone Profile*'. The values for these fields are: 'Unknown', 'Unknown', '0020F7500C1E', 'Speaker 3', 'Default', '< None >', 'Third-party SIP Device (Basic)', and 'Standard Common Phone Profile' respectively. There are 'View Details' links next to the 'Device Pool*' and 'Common Device Configuration' fields.

Device Information	
Registration	Unknown
IP Address	Unknown
MAC Address*	0020F7500C1E
Description	Speaker 3
Device Pool*	Default View Details
Common Device Configuration	< None > View Details
Phone Button Template*	Third-party SIP Device (Basic)
Common Phone Profile*	Standard Common Phone Profile

Association Information section

- In the **Directory Number** field, type an extension number that is within the range of extensions that you have set up.

Note Write this directory number down. You will need this directory number in order to complete some steps later in this procedure.

Note In Figure 4-22, the number 1600 was typed into the **Directory Number** field.

Figure 4-22. Directory Number Configuration Page

6

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go

administrator About Logout

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Directory Number Configuration Related Links: **Configure Device (SEP0020F7500C1E)** Go

Save

Status
Status: Ready

Directory Number Information

Directory Number* 1600

Route Partition <None>

Description

Alerting Name

ASCII Alerting Name

☒ Active

Directory Number Settings

Voice Mail Profile <None> (Choose <None> to use system default)

Calling Search Space <None>

Presence Group* Standard Presence group

User Hold MOH Audio Source <None>

Directory Number

3. Scroll down and click on the **Save** button on the bottom of the page.

Figure 4-23. Directory Number Configuration Page

6

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation: Cisco Unified CM Administration Go
administrator | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

Directory Number Configuration Related Links: **Configure Device (SEP0020F7500C1E)** Go

Save Delete Reset Add New

Maximum Number of Calls* 2
Busy Trigger* 2 (Less than or equal to Max. Calls)

Forwarded Call Information Display on Device SEP0020F7500C1E

☒ Caller Name
☐ Caller Number
☐ Redirected Number
☒ Dialed Number

Users Associated with Line

Associate End Users

Save Delete Reset Add New

Save button

User Management menu (select Find)

Save button

User Management menu (select Find)

4.8 Associate the Phone Device and Directory Number with the New User

To associate the phone device and directory number with the new user,

1. On the **Directory Number Configuration** page, go to the **User Management** menu and select **End User**.
2. Click on **Find**.

Figure 4-24. Directory Number Configuration Page

The screenshot displays the Cisco Unified CM Administration interface. The top navigation bar includes the Cisco logo, the title 'Cisco Unified CM Administration', and a 'Navigation' dropdown menu. The 'User Management' menu is expanded, showing options like 'End User'. The main content area is titled 'Directory Number Configuration' and includes a 'Related Links' section with a dropdown for 'Configure Device (SEP0020F7500C1E)'. Below this, there are sections for 'Maximum Number of Calls*', 'Busy Trigger*', 'Forwarded Call Information Display on Device SEP0020F7500C1E', and 'Users Associated with Line'. The 'Users Associated with Line' section contains an 'Associate End Users' button. At the bottom, there are 'Save', 'Delete', 'Reset', and 'Add New' buttons. A blue line points from the 'User Management' menu in the navigation bar to the 'Find' button in the 'Users Associated with Line' section.

Save button

User Management menu (select Find)

- On the **Find and List Users** page, click on the **Find** button.

Figure 4-25. Find and List Users Page

The screenshot shows the 'Find and List Users' page in the Cisco Unified CM Administration interface. The page has a navigation bar at the top with 'Cisco Unified CM Administration' and a 'Go' button. Below the navigation bar, there are tabs for 'System', 'Call Routing', 'Media Resources', 'Voice Mail', 'Device', 'Application', 'User Management', 'Bulk Administration', and 'Help'. The 'Find and List Users' section is active, showing a search bar with 'Find User where' and dropdowns for 'First name' and 'begins with'. A 'Find' button is highlighted with a blue arrow. Below the search bar, it says 'No active query. Please enter your search criteria using the options above.' There is also an 'Add New' button.

Find button

- All of the existing users will be listed in the **User ID** column.

Figure 4-26. Cisco19

The screenshot shows the 'Find and List Users' page in the Cisco Unified CM Administration interface. The page has a navigation bar at the top with 'Cisco Unified CM Administration' and a 'Go' button. Below the navigation bar, there are tabs for 'System', 'Call Routing', 'Media Resources', 'Voice Mail', 'Device', 'Application', 'User Management', 'Bulk Administration', and 'Help'. The 'Find and List Users' section is active, showing a search bar with 'Find User where' and dropdowns for 'First name' and 'begins with'. A 'Find' button is highlighted with a blue arrow. Below the search bar, it says 'No active query. Please enter your search criteria using the options above.' There is also an 'Add New' button. Below the search bar, there is a table with columns: 'User ID', 'First Name', 'Last Name', and 'Department'. The table contains four rows of data: 'Speaker 3', '1501', 'tom', and 'john'. The 'User ID' column is highlighted with a blue box, and the 'Description' field is highlighted with a red box. The 'User ID' column contains the values 'Speaker 3', '1501', 'tom', and 'john'. The 'Description' field contains the value 'Speaker 3'.

User name typed into the Description field

All existing users in the **User ID** column

- Click on the User ID that has the name of the user that you typed into the **Description** field in [Step 3 of Section 4.5, "Setup a New User in Cisco Call Manager"](#). This action will take you to the **End User Configuration** page.

6. On the **End User Configuration** page that appears, click on the **Device Association** button. This will take you to the **User Device Association** page.

Figure 4-27. End User Configuration

6

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation **Cisco Unified CM Administration** Go

administrator | About | Logout

System ▾ Call Routing ▾ Media Resources ▾ Voice Mail ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾

End User Configuration Related Links: **Back to Find List Users** Go

Save Delete Add New

Digest Credentials

Digest Credentials

Confirm Digest Credentials

Device Associations

Controlled Devices

Device Association

Extension Mobility

Available Profiles

Controlled Profiles

Device Association button

7. On the **User Device Association** page, click on the **Find** button.
8. Find the device by the mac address, and click on the check box next to it.
9. Click on **Save Selected/Changes** button.

Figure 4-28. User Device Association Page

6

Cisco Unified CM Administration
For Cisco Unified Communications Solutions

Navigation Cisco Unified CM Administration Go

administrator About Logout

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

User Device Association Related Links: **Back to User** Go

Select All Clear All Select All In Search Clear All In Search Save Selected/Changes Remove All Associated Devices

Status
5 records found

User Device Association (1 - 5 of 5) Rows per Page 50

Find User Device Association where Name begins with Find Clear Filter

☒ Show the devices already associated with user

		Device Name	Directory Number	Description
☐	7940	SEP000750D546F4	1001	Auto 1001
☐	7940	SEP0016477A470A	1000	Auto 1000
☐	SIP	SEP0020F7000001	1501	Cyberdata Intercom
☐	SIP	SEP0020F750008C	1502	Speaker
☒	SIP	SEP0020F7500C1E	1600	Speaker 3

Select All Clear All Select All In Search Clear All In Search Save Selected/Changes Remove All Associated Devices

Check box next to the device by the mac address

Save Selected/Changes button

Find button

Related Links drop-down menu

10. Go to the **Related Links** drop-down menu. Select **Back to User** and click on the **Go** button. This will take you back to the **End User Configuration** page.
11. On the **End User Configuration** page, look at the **Device Associations** section and the **Controlled Devices** window to verify that the Cisco identifier for the device is now attached to the user.

Figure 4-29. End User Configuration Page

6

The screenshot displays the Cisco Unified CM Administration interface. The top navigation bar includes the Cisco logo, the title 'Cisco Unified CM Administration For Cisco Unified Communications Solutions', and a navigation menu with options like System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, Bulk Administration, and Help. The main content area is titled 'End User Configuration' and includes a 'Related Links' section with a dropdown menu set to 'Back to Find List Users' and a 'Go' button. Below this, there are three main sections: 'Digest Credentials' with input fields for 'Digest Credentials' and 'Confirm Digest Credentials'; 'Device Associations' with a 'Controlled Devices' field containing the identifier 'SEP0020F7500C1E' (highlighted in red) and a 'Device Association' button; and 'Extension Mobility' with 'Available Profiles' and 'Controlled Profiles' sections. A blue arrow points from the red-highlighted identifier to the text 'Cisco identifier attached to the user' located below the screenshot.

Cisco identifier attached to the user

12. Scroll down the **End User Configuration** page. In the **Directory Number Associations** section, click on the **Primary Extension** drop-down menu and select the extension number you chose in [Step 2](#).

Note In [Figure 4-30](#), the number 1600 was selected for the primary extension.

Figure 4-30. End User Configuration Page

The screenshot displays the Cisco Unified CM Administration interface. The top navigation bar includes the Cisco logo, the title "Cisco Unified CM Administration", and a navigation menu with options like "Navigation", "Cisco Unified CM Administration", and "Go". Below this, a secondary navigation bar lists various system components such as "System", "Call Routing", "Media Resources", "Voice Mail", "Device", "Application", "User Management", "Bulk Administration", and "Help".

The main content area is titled "End User Configuration". It features a "Related Links" section with a button labeled "Back to Find List Users". Below this, there are several configuration sections:

- Default Profile:** Includes a dropdown menu for "Default Profile" (set to "-- Not Selected --") and a dropdown for "Presence Group*" (set to "Standard Presence group").
- SUBSCRIBE Calling Search Space:** A dropdown menu set to "< None >".
- Allow Control of Device from CTI:** A checkbox that is checked.
- Directory Number Associations:** A section containing a dropdown menu for "Primary Extension" which is set to "1600". A blue arrow points to this dropdown menu.
- Mobility Information:** Includes checkboxes for "Enable Mobility" and "Enable Mobile Voice Access", a dropdown for "Primary User Device" (set to "< None >"), a text field for "Maximum Wait Time for Desk Pickup*" (set to "10000"), a text field for "Remote Destination Limit*" (set to "4"), and a section for "Remote Destination Profiles".

At the top of the configuration area, there are buttons for "Save", "Delete", and "Add New".

Primary Extension drop-down menu

13. Scroll down to the bottom of the page and click on **Save** button.

4.9 Setup CyberData Device Parameters

To setup CyberData device parameters,

1. To register the Intercom, you will need to enter the information from Cisco Call Manager section into the Intercom by logging into the **Cyberdata Home Page**.

Log into the **Cyberdata Home Page** (Figure 4-31) by pointing your browser to the Intercom's IP address.

Figure 4-31. CyberData Home Page

CyberData Intercom

Home
Device Config
Networking
SIP Config
Sensor Config
Audio Config
Update Firmware

Device Settings

Device Name: VoIP Intercom

Change Username: admin

Change Password:

Re-enter Password:

Current Settings

Serial Number: 935000000

Mac Address: 00:20:f7:35:05:4e

Firmware Version: v4.0.0

IP Addressing: dhcp

IP Address: 192.168.1.29

Subnet Mask: 255.255.255.0

Default Gateway:

DNS Server 1: 68.87.76.178

DNS Server 2: 66.240.48.9

Speaker Volume: 4

Microphone Gain: 4

Primary Dialout: 204

* You need to reboot for changes to take effect

Save Reboot

SIP Setup button

For the initial configuration of the Intercom, refer to the VoIP Intercom Operation Guide which can be found at the following web address:

<http://www.cyberdata.net/support/voip/intercom.html>

Note You may also download CyberData's VoIP Discovery Utility program which allows you to easily find and configure the default web address of the CyberData VoIP products. CyberData's VoIP Discovery Utility program is available at the following web address:

http://www.cyberdata.net/support/voip/discovery_utility.html

2. Type the username and password to log into the **Cyberdata Home Page**.

3. On the **CyberData Home Page** (Figure 4-31), click on the **SIP Config** button. This will take you to the **SIP Configuration** page (Figure 4-32).

Figure 4-32. CyberData Intercom SIP Config Page

CyberData Intercom

SIP Configuration

SIP Settings

SIP Server: 10.0.5.10

Outbound Proxy:

Remote SIP Port: 5060

Local SIP Port: 5060

SIP User ID: 1600

Authenticate ID: Speaker 3

Authenticate Password: Password

Register with a SIP Server: ☒

Re-registration Interval (in seconds): 120

Unregister on Reboot: ☐

Dial Out Settings

Dial out Extension: 409

Extension ID:

* You need to reboot for changes to take effect

Save Reboot

Save Settings

4. For a quick summary of all of the necessary settings on the **SIP Setup** page (Figure 4-32), see Table 5-1. For a step-by-step description of the necessary settings, go to Step 5. If a setting parameter is not listed in Table 5-1, then your input for that setting parameter is not required to complete this procedure.

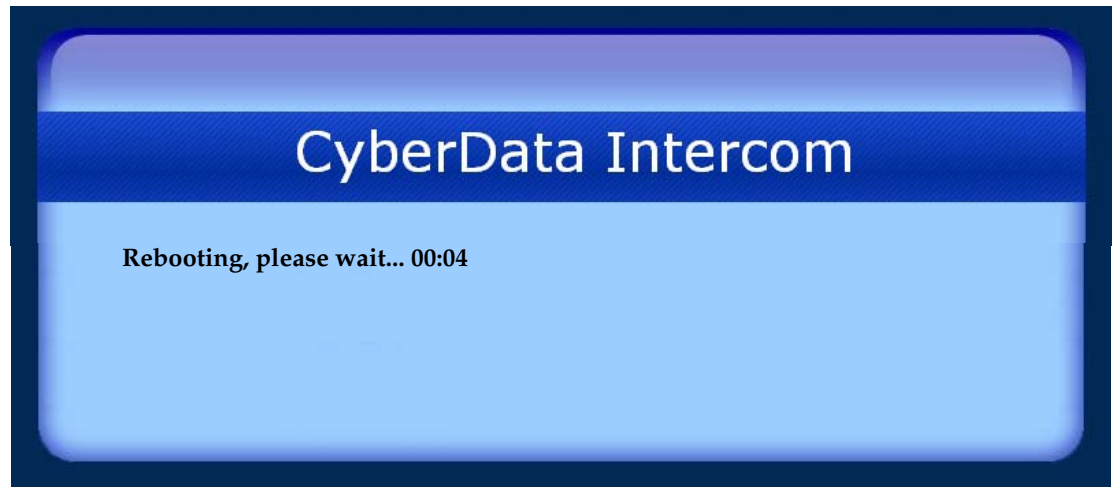
Table 5-1. SIP Setup Page Settings

SIP Setup Page Items	Setting
SIP Server field	Type the address of the Call Manager box.
SIP User ID field	Type the directory number that you wrote down in Step 2 of Section 4.7, "Create a New Directory Number (DN) and Associate it with the New Phone Device".
Authenticate ID field	Type the Cisco User ID name that you typed into the Description field in Step 3 of Section 4.5, "Setup a New User in Cisco Call Manager".
Authenticate Password field	Type in a password. NOTE: Be sure to type a password at the login prompt or else the Intercom will not be registered after the reboot in this procedure.
Register with a SIP Server field	Make sure that this box is checked.
Unregister on Reboot field	Make sure that this box is checked.
Re-registration interval (in seconds) field	Type 120 .
Dial out Extension field	Type an extension number that you want the Intercom to call.
Save button	Click on the Save button only after you have finished configuring all of the settings on the SIP Setup page.

5. On the **SIP Setup** page (Figure 4-32), complete the following steps:
- In the **SIP Server** field, type the address of the Call Manager box.
 - In the **SIP User ID** field, type the directory number that you wrote down in Step 2 of Section 4.7, "Create a New Directory Number (DN) and Associate it with the New Phone Device".
 - In the **Authentication ID** field, type the Cisco User ID name that you typed into the **Description** field in Step 3 of Section 4.5, "Setup a New User in Cisco Call Manager".
 - In the **Password** field, type in a password.
 - For **Register with a SIP Server**, make sure that this box is checked.
 - For **Unregister on Reboot**, make sure that this box is checked.
 - In the **Re-registration interval (in seconds)** field, type **120**.
 - In the **Dial out Extension** field, type an extension number that you want the Intercom to call.
6. Click on the **Save** button.

-
7. After clicking on the **Save** button, a reboot timer countdown will begin.

Figure 4-33. Intercom Reboot Timer



8. To test the Intercom, complete the following steps:
- Pick up any phone that is configured to the server system and call the Intercom's extension number.
 - When a connection is established (as indicated by a beep), speak into the phone and verify that you can hear your voice through the Intercom.
 - Hang up the phone and press the Call Button on the Intercom.
 - When the phone rings, pick up the phone. Speak into the phone and verify that you can hear your voice through the Intercom.

This step completes the procedure.